SIEMENS

# FLUOROSPOT H/HK

RX

# Installation and Setting Instructions

## Options

**Memory Expansion (Mass Memory Upgrade)**
**Display Plus (High-Speed Refresh Video)**
**Image Winchester upgrade for at least 300 Images**
**Image Winchester upgrade for at least 1000 Images (1 GB Disk)**
**Digital Optical Disk**
**Peripheral Angiography**



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| Chapter | Page | Revision |
|---|---|---|
| 0 | 1 to 4 | 04 |
| 1 | 1 to 6 | 03 |
| 2 | 1 to 4 | 03 |
| 3 | 1 to 6 | 02 |
| 4 | 1 to 2 | 04 |
| 5 | 1 to 4 | 02 |
| 6 | 1 to 4 | 04 |
| 7 | 1 to 2 | 01 |
| 0 | 1 to 4 | 05 |
| 1 | 1 to 6 | 04 |
| 2 | 1 to 4 | 04 |
| 3 | 1 to 6 | 03 |
| 4 | 1 to 2 | 05 |
| 5 | 1 to 4 | 03 |
| 6 | 1 to 4 | 05 |
| 7 | 1 to 2 | 02 |

## Documents required

| | |
|---|---|
| • FLUOROSPOT H Service Manual | 8999-0031 |
| • POLYDOROS 50/80S Speed Info 106/91 | RX67-010.117.01.05.01* |
| • Polydoros SX System Configuration starting from VC00B (XX= depending on current software version) | RX63-050.034.XX...* |

* Documents only for Peripheral Angiography Option necessary

## Measuring instruments and devices required

| | |
|---|---|
| • Service PC according specifications in the | ARTD 001.719.06.02.05 |
| • ST 320 terminal emulation | 97 04 586 Y 4364 |
| • Oscilloscope>50MHz with delayed time base and retriggering of the 2nd time base (only necessary for Display Plus option) | |
| • Tool kit | 97 02 457 Y 1971 |

**NOTICE** **The maximum memory capacity with software version VD11 is 192 MB (two mass memory boards fully equipped). The maximum capacity of one mass memory board is 96 MB.**
**Combinations of 16 MB boards and a mass memory board are possible as well. The maximum memory capacity is then 160 MB (4x16 MB boards + 1 mass memory board with 96 MB) depending on free slots in the IPS.**

## Installing memory expansion in the IPS

- Remove the front panel of the FLUOROSPOT H/HK cabinet.
- Make sure the power is either completely disconnected or is turned off at the AC power distribution system in the cabinet.
  - Remove the inside cover

**CAUTION** **Electrostatically-sensitive parts inside. Do not remove or install boards with power ON. Always use proper electrostatic protection methods when removing or installing boards.**

## If mass memory board is already present in the IPS and combined with 16 MB boards

- Remove the mass memory board from the IPS.

**NOTICE** **The memory must be expanded in 16 MB increments. One 16 MB increment = 4 memory modules.**

- Insert the number of 16 MB memory increments desired into the mass memory board, starting with the lowest section number available (see also page 1-6).
- Return the mass memory board into the same IPS slot from which it was removed. No switch changes are necessary.
- Connect the service PC and enter service mode.
- Go into the system configuration menu and change the number of 16 MB modules to the correct number (16 MB boards + 16 MB increments = number of 16 MB modules).
- If only one mass memory board is present in the IPS1.

1. Remove the mass memory board from the IPS

| NOTICE | **The memory must be expanded in 16 MB increments. One 16 MB increment = 4 memory modules.** |
|---|---|

2. Insert the number of 16 MB memory increments desired into the mass memory board, starting with the lowest section number available(see also page 1-6).
3. Return the mass memory board into the same slot from which it was removed. No switch changes are necessary.
4. For the memory expansion > 96 MB, a second mass memory board is necessary. In the IPS, move all the boards on the right side of the mass memory board one slot to the right.Expand the second mass memory board with 16 MB memory increments as described under step 2. Address the second mass memory board as described on page 1-5.Insert the mass memory board into the open IPS slot to the right of the already existing mass memory board

| NOTICE | **If you have Mass Memory Boards with different Revision Levels (50107-0002B and C) the board with level B must be switched to address 1 and has to be installed at left side of the Mass Memory Rev.C. The left board (Rev.B) has to be fully equipped.** |
|---|---|

5. Connect the service PC and enter service mode.
6. Go into the system configuration menu and change the number of 16 MB modules to the correct number.
7. Exit menu, save and reboot the system.

## If no mass memory board is present in the IPS but there is an open IPS slot available

| NOTICE | **The memory must be expanded in 16 MB increments. One 16 MB increment = 4 memory modules.** |
|---|---|

- Insert the number of 16 MB memory increments desired into the mass memory board, starting with the lowest section number available (see also page 1-6).
- In the IPS, move all the boards on the right side of the 16 MB memory boards one slot to the right.
- Set switch settings on the mass memory board as shown on page 1-5. Insert the board into the open IPS slot to the right of the 16 MB boards.
- Connect the service PC and enter service mode.
- Go into the system configuration menu and change number of 16 MB modules to the correct number (16 MB boards + 16 MB increments = number of 16 MB modules).
- Exit menu, save, reboot the system.

## If no mass memory board is present in the IPSand there is no open IPS slot available

- If the reason for a memory expansion is only to get more RAM capacity, then it is only necessary to remove the 16 MB memory board furthest to the right.The 16 MB board is replaced by the mass memory board. Continue with step 2.
- If the reason for a memory expansion is to get one more slot for an option (Sienet, DOD..) or to get one more slot for an option and additional RAM capacity, continue with step 1.

  1. The number of open IPS slots needed determines how many 16 MB boards have to be removed. Refer to the chart below.

| Number of IPS slots needed | | | | | | |
|---|---|---|---|---|---|---|
| | 4 | | | | | X |
| | 3 | | | | X | |
| | 2 | | | X | | |
| | 1 | | X | | | |
| | | 1 | 2 | 3 | 4 | 5 |

Number of 16 MB boards to be removed

| NOTICE | **When removing 16 MB boards from the IPS PC board rack, start with the 16 MB board furthest to the right.** |
|---|---|

  2. Starting with section 1 on the mass memory board, insert the number of 16 MB increments that equals the number of 16 MB boards that were removed from the IPS (see also page 1-6.

| NOTICE | **One 16 MB increment = 4 memory modules** |
|---|---|

3. Starting with the lowest section number available on the mass memory board, insert the number of 16 MB memory increments desired to expand the memory capacity of the IPS (see also page 1-6).

| NOTICE | **If any 16 MB boards are still in the system, the mass memory board must be inserted in the IPS slot to their right.** |
|---|---|

4. Set switch settings on the mass memory board as shown on page 1-5, and insert the board into the IPS.
5. If there are any open slots in the IPS between boards, move all boards to the left so that no open slots exist.
6. Connect the service PC and enter service mode.
7. Go into the system configuration menu and change number of 16 MB modules to the correct number (16 MB boards + 16 MB increments = number of 16 MB modules).
8. Exit menu, save, and reboot the system.

## Addressing of the memory boards (16 MB boards/mass memory board)

If the mass memory board and 16 MB boards are used in the same system, then the mass memory board must be in the memory slot furthest to the right. The 16 MB boards must be addressed below the mass memory board.

Each 16 MB board is addressed as a memory module (DIP switch configuration on the memory board).
The 16 MB memory modules are numbered consecutively starting from 1. The address of a mass memory board corresponds to the number of the 16 MB memory modules with which the mass memory board starts.

**Example 1:**

3x16 MB boards and one mass memory board are present in the IPS

The first 16 MB board is addressed as memory module #1.

The second 16 MB board is addressed as memory module #2.

The third 16 MB board is addressed as memory module #3.

The mass memory board is addressed as memory module #4.

**Example 2**:

2 mass memory boards are present in the IPS.

The first mass memory board is equipped with 6x16 MB modules, the second mass memory board with 3x16 MB modules.

The first mass memory board is addressed as memory module #1.

The second mass memory board is addressed as memory module #7.

Memory module # 1

| | Number | Position |
|---|---|---|
| SW 1 | 1 | OFF |
| | 2 | ON |
| | 3 | ON |
| | 4 | ON |

Memory module # 2

| | Number | Position |
|---|---|---|
| SW 1 | 1 | ON |
| | 2 | OFF |
| | 3 | ON |
| | 4 | ON |

Memory module # 3

| | Number | Position |
|---|---|---|
| SW 1 | 1 | OFF |
| | 2 | OFF |
| | 3 | ON |
| | 4 | ON |

Memory module # 4

| | Number | Position |
|---|---|---|
| SW 1 | 1 | ON |
| | 2 | ON |
| | 3 | OFF |
| | 4 | ON |

Memory module # 5

| | Number | Position |
|---|---|---|
| SW 1 | 1 | OFF |
| | 2 | ON |
| | 3 | OFF |
| | 4 | ON |

Memory module # 6

| | Number | Position |
|---|---|---|
| SW 1 | 1 | ON |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | ON |

Memory module # 7

| | Number | Position |
|---|---|---|
| SW 1 | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | ON |

**NOTICE**

**There is a misprint in the CAMTRONICS MANUAL (2/17/94) for memory modules #6 and #7 (page 5-10).**
**The setting on this page is correct.**

## Mass memory board

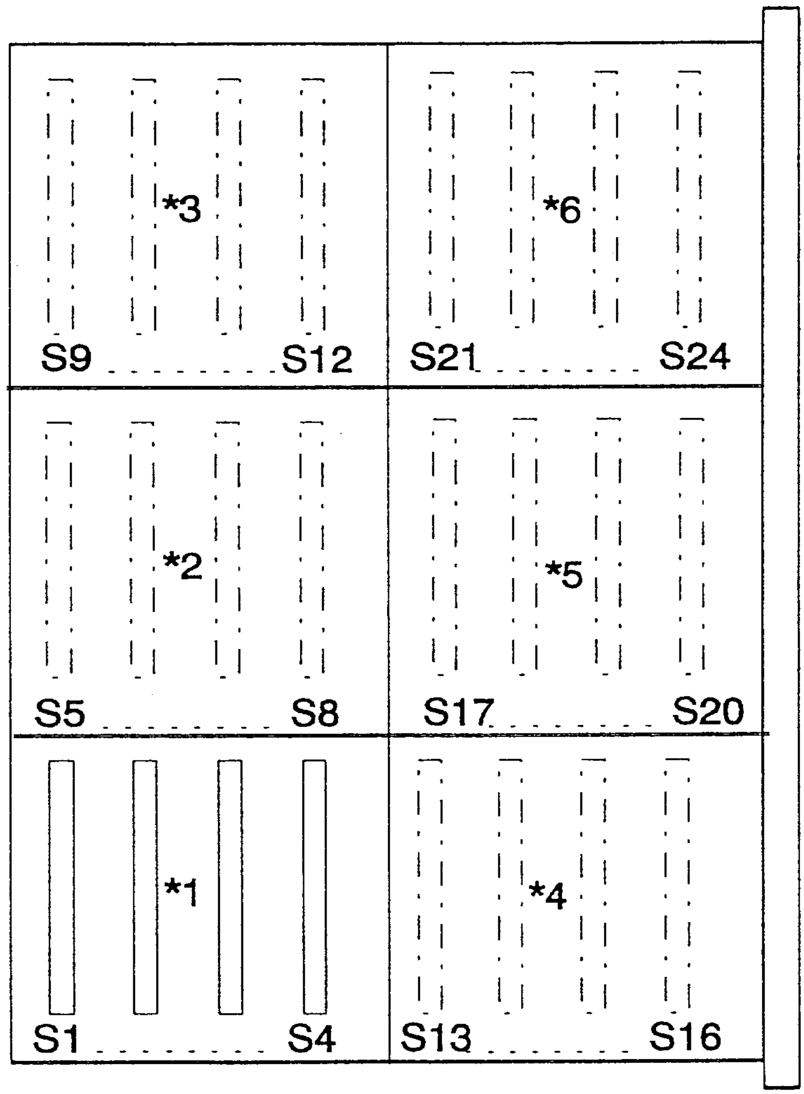



Fig. 1

*1 Section for the first 16 MB (4x4 MB module)

*2 - *6 Sections for further 16 MB increments in order

## High-speed refresh parts list:

| ITEM | QYT | Name |
|---|---|---|
| 1 | 1 | High refresh key |
| 2 | 1 | Mounting hardware |
| 3 | 1 | Conversion floppy disk |
| 4 | 1 | Option label |
| 5 | 1 | Installation instructions |

| NOTICE | The FLUOROSPOT H/HK must be Version VD 11 or higher. |
|---|---|

- Remove the front panel of the FLUOROSPOT H/HK cabinet.
- Make sure the power to the cabinet is either completely disconnected or is turned off at the power distribution system; then remove the inside cover.
- Check the version of the video output board.If the existing video output board is already a video output board III (board Part No. 50122-0001 or later) continue with the installation of high refresh key (page 2-2).

**If the existing video output board is a video output board II:**

The video output board II and the HCC digital board have to be removed from the IPS system.

If an analog HCC board is present, this board remains in the IPS system.

If the video output board III is used with a digital hardcopy camera, then the PAL U505 (video output board III) must read **1U505**.

If the video output board III is used with an analog hardcopy camera, then the PAL U505 (video output board III) must read **2U505**.

Insert the video output board III in the IPS.
Make the following connections (see also page 2-4):

Video Ref. Out to J6 on video output board III
Video Live Out to J5 on video output board III
For digital camera connection, connect the HCC data cable to J8 on video output board III.
For analog camera connection, connect the HCC video cable to J4 on the analog HCC board.

**NOTICE**

**Please return the HCC digital board and the video output board II. Attach the following note:**

**"Part numb. 12 86 173 XE013 (HCC DIGITAL BOARD)"**
**"Part numb. 12 86 132 XE013 (VIDEO OUTPUT BOARD live+ ref.)"**
**"High REFRESH OPTION" return parts**

**or**

**"Part numb. 12 86 173 XE013(HCC DIGITAL BOARD)"**
**"Part numb. 12 86 223 XE013(VIDEO OUTPUT BOARD live only)"**
**"High REFRESH OPTION" return parts**

## Installing the high refresh key

1. The Host CPU is located on the right side of the cabinet. At the bottom edge of the Host CPU is a row of ”DB” style connectors, including one 25-pin female connector (J10). If there is no key plugged into J10, then do step 2.
2. If the ”Peripheral Angiography Option” key is plugged into J10,then do step 3.2.If the small threaded spacers that are used to secure ”DB” connectors are missing from J10, install the spacers that are supplied with the kit.
   If necessary, the connector on the corner of the Host CPU (J12) may have to be removed to get at J10.
   Plug the high refresh key into J10 and secure it to the threaded spacers with the screws provided.Continue with system configuration.
3. Insert the floppy disk (Part No. 30295-0001) supplied with the kit into the FLUOROSPOT floppy disk drive and power up the system.
   When prompted, power down the system, and remove the old key. Change the label on the new key to read ”30242-0003”, discard old key. Insert the new key and power up the system again.
   The program then adds the data from the old key to the new key and the conversion procedure is completed. Remove the floppy disk and power down the system.

### System configuration

- Remove the CPU board from the IPS and set SW 2 number 5 and 6 to the off (down) position, and the number 8 to the on (up) position.If an analog HCC board is used in the IPS system, on the IPS CPU the SW 2 number 5, 6 and 8 has to be set to the off (down) position.
- Connect the service PC and enter service mode.
- Go into the system configuration menu and change the High Refresh option to ”YES”.
- Exit configuration menu, save and power down the system.

## Calibrating the video output board III

- The calibration of the video output board III is only necessary if this board replaces a video output board II.
- Place the video output board III on an extender and power up the system.
- Connect the oscilloscope to TP 1500 on the video output board III.
- Adjust L 1500 on the video output board III (pixel clock phase lock osc.) for a maximum voltage of about 1.0 V $\pm$ 100 mV above ground.
- This completes the pixel clock phase-locked loop adjustment. At this point the LED D1500 should be solid on (green).
- Power down the system and place video output board III back into the unit.
- Verify that a display monitor with 75-Ohm termination is connected to J10 on the transition panel and that the live monitor is connected to J5 on the video output board III.

- Connect the service PC and enter the service mode.From the service PC, select ”Test Images”, then ”Smooth Gray Scale”, then select ”Test Image Parameters”. Set the window upper limit to 381 and the window lower limit to 380. Press <Enter> to save the values.
- Connect oscilloscope channel 1 to transition panel TP 5 (video live output) and adjust R 1056 until the signal is 0.7 V $\pm$ 50mV black to white (see also page 2-4).
- Adjust R 1049 pedestal to zero pedestal (+5mV - 0mV).
- Adjust R 1048 sync to 0.3 V $\pm$ 50mV.
- Reference output (not present on 50122 - 002 version of video output board III). Verify that a display monitor with 75-Ohm termination is connected to J8 on transition panel and that the reference monitor is connected to J6 on the video output board III.
- Connect oscilloscope channel 1 to transition panel TP 2 (video ref. output) and adjust R 1156 until the signal is 0.7 V $\pm$ 50mV black to white.
- Adjust R 1149 pedestal to zero pedestal (+5mV - 0mV).
- Adjust R 1148 sync to 0.3 V $\pm$ 50mV.
- The difference between Live and Ref black to white signal has to be smaller than 20mV.

## Checking the configuration of the SIMOMED-H monitors

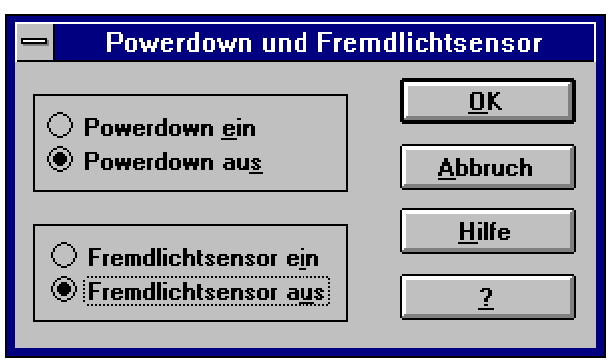
- Enter the SIMOMED 90H service menu. Check whether the video standard (62.45 KHz / 100 Hz (61.38 KHz / 120 Hz) is set to the 1:1 aspect ratio and the standard changing time is set to 0.

## Settings and Configuration with SIMOMED HM Monitors

### Switching off the external light sensor

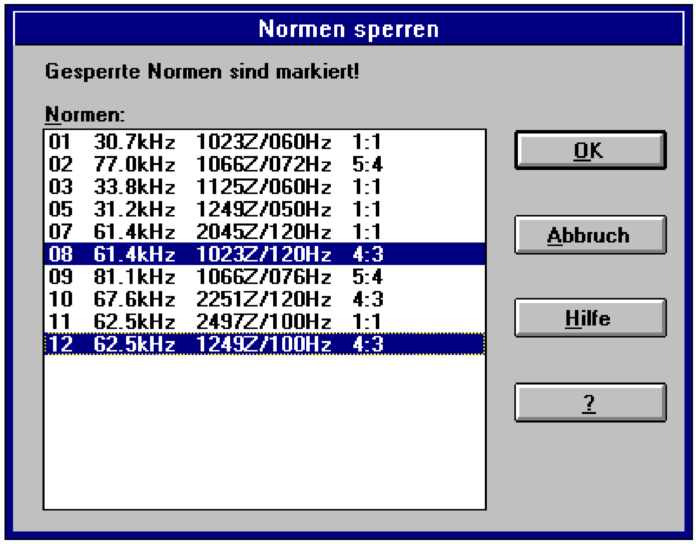
Before making the adjustments, switch off the external light sensor as follows:

Switch off the sensor in <<**Configuration**>><<**Powerdown & External light sensor**>>.



### Blocking Norms (4:3 screen format)

Block norms with the 4:3 screen format in <<**Configuration**>><<**Block Norms**>> as shown below:

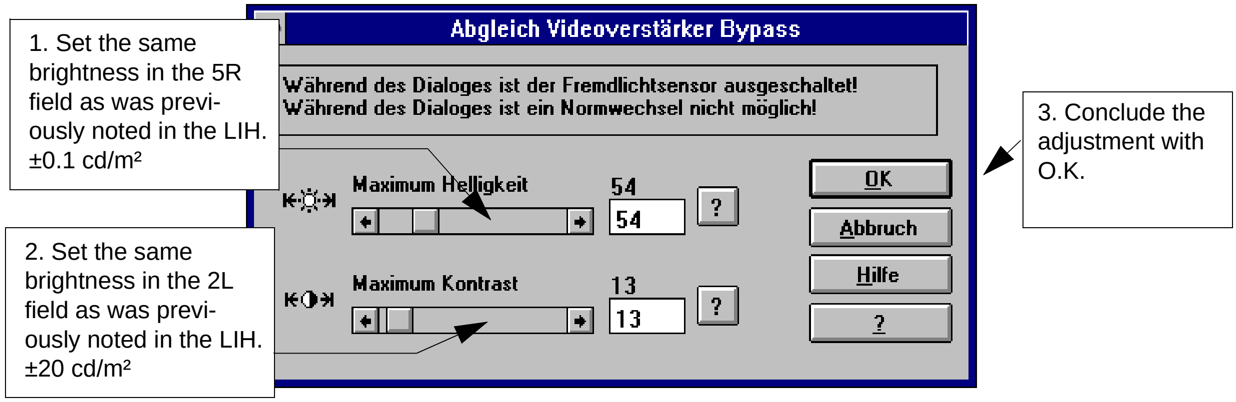



## Adjusting Luminous Intensity in 50/60Hz Systems with Display Plus

**The luminous intensity in SIMOMED HM monitors can be adjusted according to the norm. Carry out the adjustment as follows for the 100/120Hz Norm:**

- Remove jumper JP4 on the FLH Transition Panel and place it on JP5. By doing this, the FLH will not switch off in the bypass mode. (Reestablish the jumper position after making the adjustment!)
- Connect the service cable to the monitor.
- Insert the dynamics test in the beam path and select the Zoom steps so that the 2L and 5R fields are still completely visible (with 40 cm I.I., Zoom 2).
- Use the Mavo monitor to measure the luminous intensity of the 2L and 5 R fields in the LIH image and make a note of the result.
- Switch the Fluorospot to Bypass.
- Select the <<**Video Amplifier Adjustment**>> <<**Bypass**>> menu.

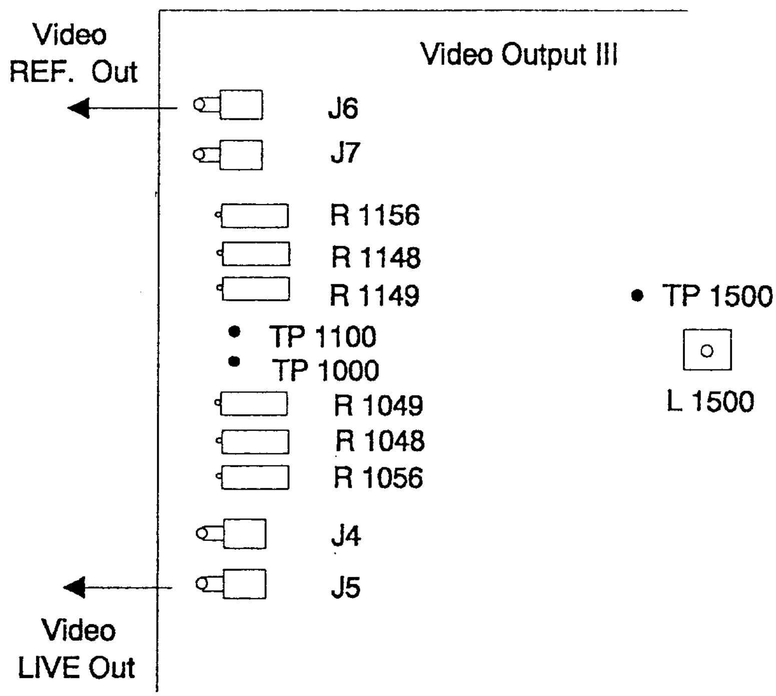
- Under fluoroscopy (digital and analog), set the following values by using an alternating adjustment:

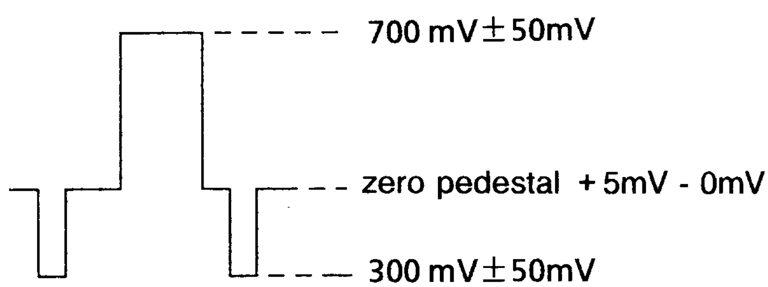



- The adjustments of contrast and brightness are not dependent on the video norm and do not need to be readjusted.
- After completing the adjustment, remove jumper JP5 on the FLH Transition Panel and place it back on JP4. By doing this, the FLH will switch off in the bypass mode (emergency mode).

## Concluding work

- Reattach the inside cover.
- Attach the option label to the inside cover above existing option labels.
- Update the product status list for this system.
- Reattach the exterior panel.



**This procedure describes installation of the SCSI Image Winchester Option in a FLUOROSPOT H/HK without a Winchester drive**

## SCSI Image Winchester Upgrade Parts List

| ITEM | QYT | Name |
|---|---|---|
| 1 | 1 | SCSI Board |
| 2 | 1 | Winchester Drive |
| 3 | 1 | Data Cable |
| 4 | 4 | Screws |
| 5 | 1 | Cable Clamp |
| 6 | 1 | Option Label |
| 7 | 1 | Instructions |

## FLUOROSPOT

**Subject:** SCSI Image Winchester Upgrade Kit
**Part Number:** 44 65 928 RV049
**Time Required:** 4 hours

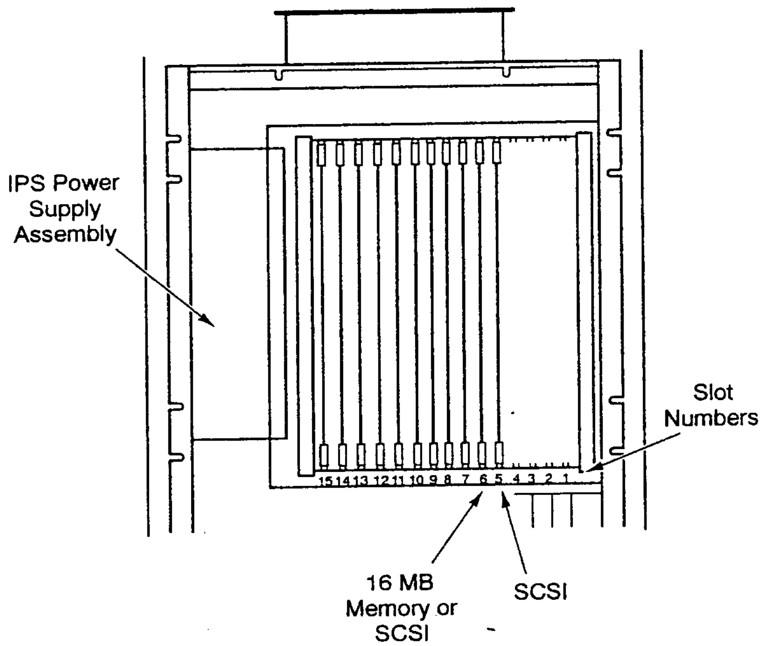
| NOTICE | **Run all service diagnostics to verify proper operation of the system before starting the upgrade.** |
|---|---|

| CAUTION | **Electrostatically-sensitive parts inside. Do not remove disk drives with the power on. Always use proper electrostatic protection measures when removing disk drives.** |
|---|---|

## Installing the SCSI Control Board (50070 - 0003 or 50109 - 0003)

- Remove the front panel of the FLUOROSPOT H cabinet then remove the inside cover.
- Make sure the power to the cabinet is either completely disconnected or is turned off at the AC power distribution system in the cabinet.
- Insert the SCSI control board into the IPS card cage immediately following the last 16 MB/Mass Memory board. All appropriate boards must be moved one slot to the right so the SCSI board is installed in the proper slot.

Figure shows the configuration for either a 4 or 5 16MB memory board configuration.




| | |
|---|---|
| 15 | Sync I/O |
| 14 | CPU/Memory Control |
| 13 | Video Input |
| 12 | 3MB Memory |
| 11 | Temporal Filter |
| 10 | 16MB Memor y |
| 9 | 16MB Memory |
| 8 | 16MB Memory |
| 7 | 16MB Memory / Mass Memory |
| 6 | 16MB / Mass Memory or SCSI Board |
| 5 | SCSI Board or next IPS Board<br>- Subtraction<br>- Spatial Filter<br>- Interpolator<br>- Hard Copy Camera<br>- Video Output |

**NOTICE** **If the Mass Memory board and 16MB boards are both used in the system then the Mass Memory board must be in the memory slot furthest to the right. The 16MB boards must be addressed below the Mass Memory Board.**

## SCSI Board Switch and Jumper settings

**SCSI Board (50070-0003)**

| | Number | Position |
|---|---|---|
| **SW 1** | Reset Switch | |
| **SW 2** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |
| | 5 | OFF |
| | 6 | OFF |
| | 7 | OFF |
| | 8 | OFF |
| **SW 3** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |
| **SW 4** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |

| Jumpers | Position |
|---|---|
| JP1 | IN-2 to 3 |
| JP2 | IN-1 to 2 |
| JP3 | IN-2 to 3 |

**SCSI EDMA Board (50109-0003)**

| | Number | Position |
|---|---|---|
| **SW 1** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |
| **SW 2** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |
| | 5 | OFF |
| | 6 | OFF |
| | 7 | OFF |
| | 8 | ON |
| **SW 4** | 1 | OFF |
| | 2 | OFF |
| | 3 | OFF |
| | 4 | OFF |

| Jumpers | Position |
|---|---|
| JP1 | IN-2 to 3 |
| JP2 | IN-2 to 3 |
| JP3 | IN-1 to 2 |
| JP4 | IN-1 to 2 |
| JP5 | IN-2 to 3 |
| JP6 | IN-2 to 3 |

## Installing the Image Winchester drive

- Loosen the two screws securing the disk drive mount upright. Rotate the mount forward 90 degrees to access the rear of the disk drives.
- Remove the plastic guard covering the mounting hole for the Winchester drive.
- Slide the Winchester drive through the back of the disk drive mount and secure it with four screws.
- Connect the existing power cable that is located behind the drive mount to the Winchester drive.
- Connect the one end of the data cable (65128-0001) to the Winchester drive and the other end to J6 on the SCSI board. Secure the cable by routing it through the white plastic retainer located on the back wall inside the unit.
- Rotate the drive mount 90 degrees so that is is vertical, and secure the mount with the two screws.
- Attach the plastic cable clamp to the bottom of the drive mount and insert the data cable throught it.

## System Configuration

- Connect the Service PC and enter the Service Mode.
- Enter the System Configuration menu and change ”Image Winchester” to YES.
- Exit menu, Save, power down and reboot the system.
- Reenter Service Mode and run IMAGING SYSTEMS TEST.
- ”H. SCSI Board” and ”O. Image Path Tests” to verify proper operation of the SCSI Board.
- Test normal FLUOROSPOT H postprocessing operation to verify proper operation of the Winchester image disk.
- Attach Option label to the inside cover above any existing option labels.
- Replace the inside cover and the front panel of the FLUOROSPOT H cabinet.
- Update the Product Status List.

## Directory Reset Operation

- Turn off the system power.
- Place the IPS CPU SW2 position 2 to the off (down) position.
- This will allow the erasure of the current image disk directory.
- Turn on the system power and allow the system to reboot.
- From the Pat Dir screen enter into the ENTER PATIENT DATA MODE.
- Enter the data for a new patient folder and save the folder by selecting OK.
- This will create a new patient directory on the image disk.
- Return to the PAT DIR screen and power down the system.
- Place the IPS CPU SW2 position 2 to the on position.
- Verify that all of the FLUOROSPOT functions are working properly, and the new patient folder still exists.
- The Winch. capacity is 300 images matrix 1024 or<br>400 images matrix 884

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## This procedure describes the replacement of a 300/400 images Winchester Drive with a 1GB Winchester Drive.

| NOTICE | **The FLUOROSPOT H/HK must be Version VD 11 or higher** |
|---|---|

| CAUTION | **Because of "Data Privacy Protection" the Winchester Image Disk has to be deleted completely before removing it from FLUOROSPOT. The removed Winchester Image Disk is property of the customer** |
|---|---|

- Remove the front panel of the FLUOROSPOT H/HK cabinet.
- Make sure the power to the cabinet is either completely disconnected or is turned off at the power distribution system, then remove the inside cover.
- Check the SCSI Winchester board in the IPS system. If the existing SCSI board is already a ”SCSI EDMA Winchester board” (Part No. 50109-0003 *), proceed as described under ”Replacement of the Winchester hard disk drive”.
  If the present SCSI board is a SCSI control board 1 (Part No.50070-0003 *), replace the board with a ”SCSI EDMA Winchester board” (Part No.50109-0003 *).

*These numbers are board part numbers

## Replacing the Winchester hard disk drive

- Remove two screws holding the disk drive mount upright.
- Tilt the mount forward 90 degrees so that the rear of the disk drive is accessible.
- Disconnect the drive power and SCSI cable from the rear of the hard disk drive.

| CAUTION | **Support the disk drive while removing the screws.** |
|---|---|

- Remove four screws securing the hard disk drive in the mount, and slide the hard disk drive out of the front of the mount.
- To install the 1 GB hard disk drive, slide the hard disk through the front of the disk drive mount and secure it with four screws.
- Connect the drive power and SCSI cable to the ports on the rear of the hard disk drive.
- Tilt the drive mount back in place and secure the mount with two screws.

## Switch and Jumper settings SCSI EDMA Board (50109-0003)

| | Number | Position | | Number | Position |
|---|---|---|---|---|---|
| **SW 1** | 1 | OFF | **SW 4** | 1 | OFF |
| | 2 | OFF | | 2 | OFF |
| | 3 | OFF | | 3 | OFF |
| | 4 | OFF | | 4 | OFF |
| **SW 2** | 1 | OFF | | **Jumper** | **Position** |
| | 2 | OFF | | | |
| | 3 | OFF | | JP1 | IN-2 to 3 |
| | 4 | OFF | | JP2 | IN-2 to 3 |
| | 5 | OFF | | JP3 | IN-1 to 2 |
| | 6 | OFF | | JP4 | IN-1 to 2 |
| | 7 | OFF | | JP5 | IN-2 to 3 |
| | 8 | ON | | JP5 | IN-2 to 3 |

## Resetting Winchester directory

- Power down the system.
- Place the IPS CPU SW2 position 2 to the off (down) position. This will allow the erasure of the current image disk directory.
- Power up the system and allow the system to reboot.
- From the PAT DIR screen enter into the ENTER PATIENT DATA MODE.
  Enter the data for a new patient folder and save the folder by selecting OK.
  This will create a new patient directory on the image disk.
- Return to the PAT DIR screen and power down the system.
- Place the IPS CPU SW2 Position 2 to the ON position.
- Power up the system and allow the system to reboot.
- Verify that all of the FLUOROSPOT H functions are working properly, and the new patient folder still exists.
- The Winchester capacity is 1000 images matrix 1024 or 1350 images matrix 884.

## Concluding work

- Reattach the inside cover
- Attach the option label to the inside cover above existing option labels.
- Update the product status list for this system.
- Reattach the exterior panel.

## DOD option parts list

| Item | Qty. | Name |
|---|---|---|
| 1 | 1 | DOD interface board |
| 2 | 1 | DOD drive assy. |
| 3 | 3 | Cables |
| 4 | 2 | Screws |
| 5 | 1 | Keycap insert |
| 6 | 1 | Option label |
| 7 | 1 | Instructions |

## General Remarks

**NOTICE**

**The FLUOROSPOT H/HK must be Version VC20/VD10 or higher before installing this option**

- Remove the front panel of the FLUOROSPOT H/HK cabinet.
- Make sure that the power to the cabinet is either completely disconnected or is turned off at the AC power distribution system in the cabinet.
- Remove the inside cover.

## Installing the DOD interface board

**CAUTION**

**Electrostatically-sensitive parts inside. Do not remove boards with power ON. Always use proper electrostatic protection measures when removing boards**

**CAUTION**

**Do not flex boards while removing them. Pull the boards straight out of their sockets. Flexing the boards can damage the boards and the sockets.**

- The DOD interface board (board part number 50109-0002) must always be installed in the slot to the right of the Winchester SCSI board.
  Therefore, it is necessary to move some of the IPS boards.

**NOTICE**

If no board slot is available in the IPS PC board rack to install the DOD interface board, then the mass memory upgrade kit (Part No. 44 00 292) must be installed first. This allows the replacement of two 16 MB memory boards by a single board. See also ”MEMORY EXPANSION” option.

## Switch and jumper settings for DOD interface board

| | | |
|---|---|---|
| Switch 1 | Pos. 1 | OFF |
| | Pos. 2 | OFF |
| | Pos. 3 | OFF |
| | Pos. 4 | OFF |
| Switch 1 | Pos. 1 | OFF |
| | Pos. 2 | OFF |
| | Pos. 3 | OFF |
| | Pos. 4 | OFF |
| | Pos. 5 | OFF |
| | Pos. 6 | ON |
| | Pos. 7 | OFF |
| | Pos. 8 | OFF |
| Switch 4 | Pos. 1 | OFF |
| | Pos. 2 | OFF |
| | Pos. 3 | ON |
| | Pos. 4 | ON |
| Jumpers | JP1 | 2 to 3 |
| | JP2 | 2 to 3 |
| | JP3 | 2 to 3 |
| | JP4 | 1 to 2 |
| | JP5 | 2 to 3 |
| | JP6 | 1 to 2 |

- Install DOD interface board in the slot to the right of the Winchester SCSI board. Therefore move all the boards on the right side of the Winchester SCSI board one slot to the right.
- Connect cable (Part No. 65126-0002) to the DOD interface board J5. Route the cable through the box. Using 2 screws, secure the other end to the top of the metal plate in front of the transition panel (see Fig.1).

**FLUOROSPOT HK:It is not possible to secure the other end. Leave it hanging inside the box.**

## Installing the DOD assembly

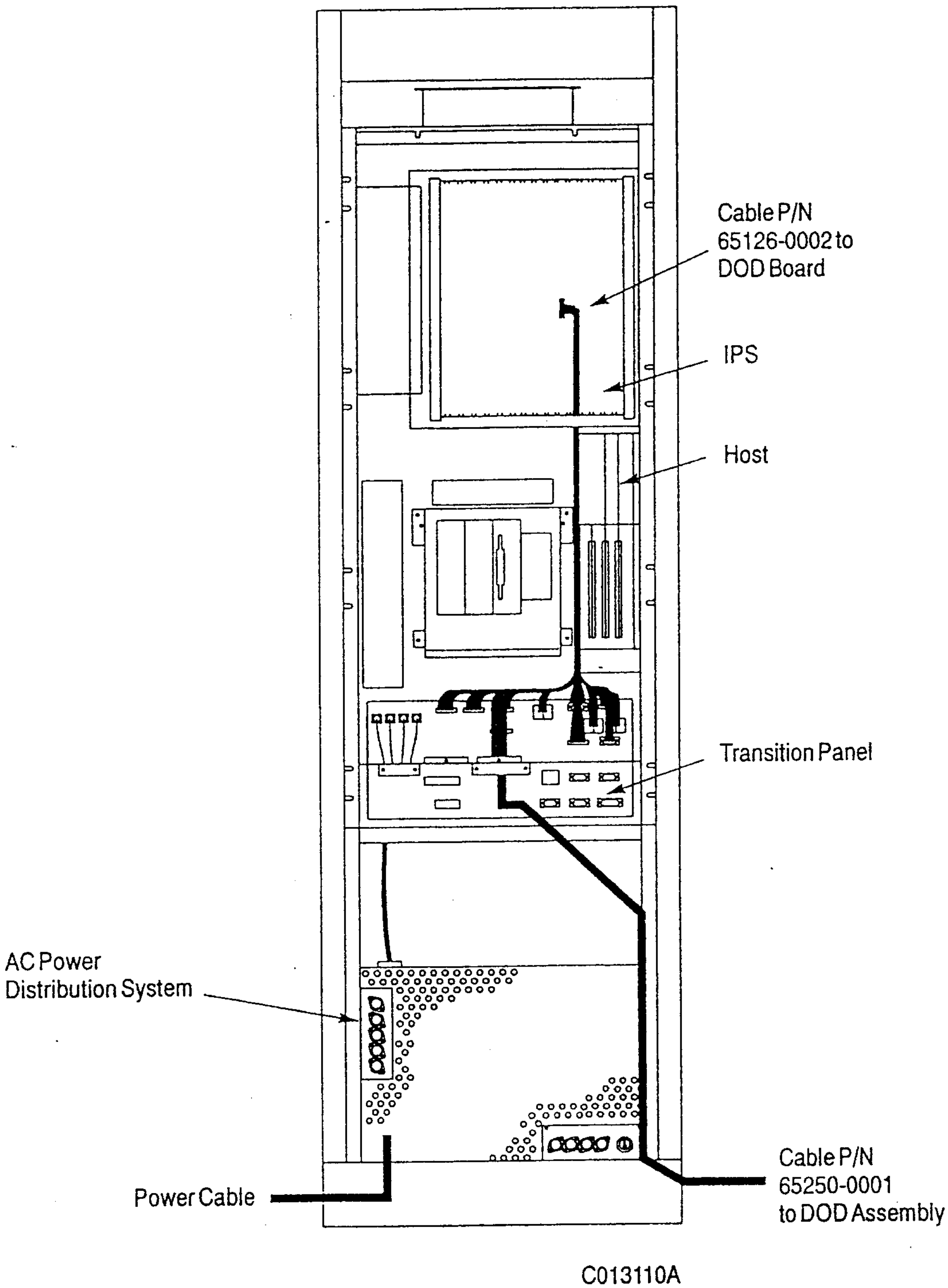
- Connect cable (Part No. 65250-0001) from the back of the DOD assembly to the bottom of the metal plate on the transition panel assembly (see Fig.1).
- Connect the power cable from the back of the DOD assembly to TB4 of the AC power distribution system of the FLUOROSPOT H/HK.

| | | |
|---|---|---|
| TB4-1 | Ground | (green/yellow) |
| 2 | Line | (brown) |
| 3 | Neutral | (blue) |

## Miscellaneous

- Connect the service PC and enter the service mode.
- Go into the system configuration menu and change the DOD option to YES.
- Exit menu, save and reboot the system.
- Confirm that ”DOD DIR” appears on the patient directory.
- Add DOD keycap to keyboard above the ”hardcopy single image” key.
- Enter the service mode and run DOD-related imaging system tests and interface tests.
- Attach the option label to the inside cover above existing option labels.
- Reattach the inside cover and front panel of the FLUOROSPOT H cabinet.

Figure 1 DOD Board and Transition Panel



## Peripheral Angiography parts list

| ITEM | QYT | Name |
|---|---|---|
| 1 | 1 | Pery key |
| 2 | 1 | Mounting hardware |
| 3 | 1 | Conversion floppy disk |
| 4 | 1 | Option lable |
| 5 | 1 | Installation Instructions |

- Remove the front panel of the FLUOROSPOT H cabinet then remove the inside cover.
- Make sure the power to the cabinet is either completely disconnected or is turned off at the AC Power Distribution System in the cabinet.

## Installing the Peripheral Angiography key

1. The Host CPU is located on the right side of the cabinet. At the bottom edge of the Host CPU is a row of ”DB” style connectors, including one 25-pin female connector (J10). If there is no key plugged into J10, then do step 2. If the ”High Refresh Option” key is plugged into J10, then do step 3.
2. If the small threaded spacers that are used to secure ”DB” connectors are missing from J10, install the spacers that are supplied with the kit.
   If necessary, the connector on the corner of the Host CPU (J12) may have to be removed to get at J10.
   Plug the Peripheral Angiography Option key into J10 and secure it to the threaded spacers with the screws provided.
   Continue with system configuration FLUOROSPOT H.
3. Insert the floppy disk (Part No. 30295-0001) supplied with the kit into the FLUOROSPOT floppy disk drive and power up the system.
   When prompted, power down the system, and remove the old key. Change the label on the new key to read ”30242-0003”, discard old key. Insert the new key and power up the system again.
   The program then adds the data from the old key to the new key and the conversion procedure is completed.Remove the floppy disk and power down the system.

## System Configuration FLUOROSPOT H

- Connect the Service PC and enter the service mode
- Go into rhe system configuration menu and change the Peripheral Angiography Option to ”YES”.
- Set the number of Peri Positions to 6 (set for SIREGRAPH D340 ).
- Exit menu, save and power down the system.

### Table-specific changes

- The necessary hard and software changes for the SIREGRAPH D340 are discribed in:
  - MORX Modification Instructions No. 11/92 Firmware Info 11
  - MORX Modification Instructions No. 23/93 Firmware Info 15
- Configure "Peripheral Stepping" in the POLYSTAR "Adjustment" menu (System Configuration)

### Generator-specific changes

- **POLYDOROS S**
  - The POLYDOROS S must have the software version VG2 (see also Speed Info 106/91 ”POLYDOROS 50/80S” R67-010.117.01.05.01)
  - In the generator configuration (see also System configuration, staring from VG1 R67-010.034.07...) Module J40 set the parameter ”PERI” to YES and the Exposure Point (EP) reduction as follow:

| | |
|---|---|
| Step 1 | 1 EP |
| Step 2 | 1 EP |
| Step 3 | 3 EP |
| Step 4 | 4 EP |
| Step 5 | 1 EP |

- **POLYDOROS SX 50/80**
  - POLYDOROS SX software version <VC00B, in the generator configuration Module J40 set the parameter ”PERI” to YES and the Exposure Point (EP) reduction as above mentioned.
  - POLYDOROS SX software version ?VC00B, in the mask DR-settings select ”Peripheral Angiography” and set the Exposure Point (EP) reduction as above mentioned.
  - See also Startup Instruction, System configuration starting with VC00B RX63-050.034 (depending on listed software version)

- **POLYDOROS SX 65/80 (XCS)**
  - No settings are necessary for the generator. Exposure point reduction is not variable with this generator.
    Configure Peri Stepping in the XCS Site Structure menue for the R/F table.

## Test

- Select PERI on the SIREGRAPH D340 remote contol console
- At the FLUOROSPOT operator console enter the Organ Program menu and note that PERI organ programs are now available
- Select a PERI organ program and try the system to validate operation.

## Conclusion

- Turn system power of the FLUOROSPOT off and replace the IPS cover.
- Install the option lable on the IPS cover below other option lables which are there.
- Update the poduct status list for this system.
- Replace the exterior cover

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| | |
|---|---|
| **All Pages** | New layout |
| **Chapter 0** | |
| Page 1 | Print Number, date and Revision level updated. |
| Page 2 | Revision level table new. |
| Page 3 | Table of Contents updated. |
| Page 4 | Paragraphs "Documents required" and "Measuring instruments and devices required" in Chap.1 moved and contents changed. |
| **Chapter 1** | |
| Page 1 | 1st paragraph of "Note" eliminated. |
| Page 2 | Under 4. "VD11 only" eliminated and "Note" added. |
| **Chapter 2** | |
| Page 4 | Paragraph. "Adjustment and configuration for SIMOMED HM monitors" new. |
| **Chapter 3** | |
| Page 5 | Last point added. |
| **Chapter 4** | |
| Page 4 | The first 3 points in paragraph "Resetting...." eliminated and last line added. |
| **Chapter 6** | |
| Page 1 | "Note" eliminated. |
| Page | Under "Table specific....." new point "Configure..." added.<br>Paragraph "POLYDOROS SX65/80 (XCS)" added. |
| **Chapter 7** | Updated. |

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TD AX 1/Biedermann,Tropia

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